IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

BLACKBOARD, INC.,	§	
	§	
Plaintiff,	§	
	§	Civil Action No. 9:06-CV-155
v.	§	
	§	
DESIRE2LEARN, INC.,	§	JUDGE RON CLARK/
	§	JUDGE EARL HINES
Defendant.	§	

MEMORANDUM OPINION AND ORDER CONSTRUING CLAIM TERMS OF UNITED STATES PATENT NO. 6,988,138

Plaintiff, Blackboard, Inc. ("Blackboard"), alleges that Defendant Desire2Learn, Inc. ("D2L") infringes U.S. Patent No. 6,988,138 (the ` 138 patent).

In accordance with 28 U.S.C. § 636(b)(1), Federal Rule of Civil Procedure 72, and Local Rules for the United States District Court for the Eastern District of Texas, this civil action is referred to the undersigned United States Magistrate Judge for construction of claims. The court conducted a *"Markman* hearing" for assistance in that task.[1] Herein, the court makes its findings, and construes disputed claim terms.

I. Claim Construction Standard of Review

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S. Ct. 1384 (1996) ("*Markman II*"). "The duty of the trial judge is to determine the

[1] The transcript of the *Markman* hearing will be cited as "Tr. p. ___, l. ___."

meaning of the claims at issue, and to instruct the jury accordingly." *Exxon Chem. Patents, Inc. v. Lubrizoil Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995) (citations omitted).

"'[C]laims of the patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.,* 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (citation omitted). "Because the patentee is required to 'define precisely what his invention is,' it is 'unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.'" *Phillips*, 415 F.3d at 1312 (quoting *White v. Dunbar*, 119 U.S. 47, 52 (1886)).

Words of a claim generally are given their ordinary and customary meaning. *Phillips*, 415 F.3d at 1312. The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1313. Analyzing "how a person of ordinary skill in the art understands a claim term" is the starting point of a proper claim construction. *Id.* A "person of ordinary skill in the art is deemed to read the claim term not only in context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Phillips*, 415 F.3d at 1313.[2]

[2] Based on the patents at issue, the technology involved, and the parties' agreement, one of ordinary skill in the art is "someone with the equivalent of a 'four-year' degree from an accredited institution (usually denoted in this country as a B.S. degree) in the field of computer science, or related field, and between two and three years of applications programming experience. Experience and technical training may substitute for educational requirements, while advanced degrees may substitute for some of the experience."

When a claim term has a particular meaning in the field of art, the court must examine those sources available to the public to show what a person skilled in the art would have understood disputed claim language to mean. *Id.* at 1414. Those sources "include 'words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.'" *Id.* (citation omitted).

"[T]he ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Phillips*, 415 F.3d at 1314. In these instances, a general purpose dictionary may be helpful. *Id.* However, "the specification 'is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). A court is authorized to review extrinsic evidence, such as dictionaries, inventor testimony, and learned treaties, but their use should be limited to edification purposes. *Phillips*, 415 F.3d at 1317, 1319.

Claim terms take on their ordinary and accustomed meanings unless the patentee demonstrated "clear intent" to deviate from the ordinary and accustomed meaning of a claim term by redefining the term in the patent specification. *Johnson Worldwide Assoc., Inc. v. Zebco Corp.*, 175 F.3d 985, 990 (Fed. Cir. 1999). The patentee may deviate from the plain and ordinary meaning by characterizing the invention in the prosecution history using words or expressions of

manifest exclusion or restriction, representing a "clear disavowal" of claim scope. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002). The intrinsic evidence, that is, the patent specification, and, if in evidence, the prosecution history, may clarify whether the patentee clearly intended a meaning different from the ordinary meaning, or clearly disavowed the ordinary meaning in favor of some special meaning. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-80 (Fed. Cir. 1995)(en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384 (1996). When a patentee clearly intended to be his own lexicographer, the "inventor's lexicography governs." *Phillips*, 415 F.3d at 1316.

II. Claim Construction of ` 138 Patent

The ` 138 patent relates to systems and methods for implementing education by providing institutions with the means for allowing creation of courses to be taken by students online. The courses include assignments, announcements, course materials, chat and whiteboard facilities, and the like available to students over a network such as the Internet. Various levels of functionality are provided through a three-tiered licensing program that suits the needs of the institution offering the program. In addition, an open platform system is provided such that anyone with access to the Internet can create, manage, and offer a course to anyone else with access to the Internet without the need for an institutional affiliation, thus enabling a worldwide virtual classroom.

Disputed terms in the ` 138 patent are contained in Claims 1 (a system claim) and 36 (a method claim). These claims, with disputed terms in bold, are set forth below:

1. A course-based system for providing to an educational community of users access to a plurality of online courses, comprising:

a) a plurality of user computers, with each user computer being associated with a user of the system and **with each user being capable of having predefined characteristics indicative of multiple predetermined roles in the system**, each role providing a level of access to a plurality of data files associated with a particular course and a level of control over the data files associated with the course with the **multiple predetermined user roles comprising at least two user's predetermined roles** selected from the group consisting of a student role in one or more course associated with a student user, an instructor role in one or more courses associated with a instructor user and an administrator role associated with an administrator user, and

b) a server computer in communications with each of the user computers over a network, the server computer comprising:

means for storing a plurality of data files associated with a course,

means for assigning a level of access to and control of each data file based on a user of the system's predetermined role in a course;

means for determining whether access to a data file associated with the course is authorized;

means for allowing access to and control of the data file associated with the course if authorization is granted based on the access level of the user of the system.

36. **An method for providing online education method for a community of users in a network based system comprising the steps of**:

a) **establishing that each user is capable of having redefined characteristics indicative of multiple predetermined roles in the system** and each role providing a level of access to and control of a plurality of course files;

b) establishing a course to be offered online, comprising

i. generating a set of course files for use with teaching a course;

ii. transferring the course files to a server computer for storage; and

iii. allowing access to and control of the course files according to the established roles for the users according to step (a);

c) **providing a predetermined level of access and control over the network to the course files** to users with an established role as student user enrolled in the course; and

d) providing a predetermined level of access and control over the network to the course files to users with an established role other than a student user enrolled in the course.

1. "With each user being capable of having predefined characteristics indicative of multiple predetermined roles in the system." Used in Claim 1.

Blackboard proposes: "Each user can have multiple roles in the system such that each user identified can have one role in one course and another role in another course. The roles and some associated characteristics are set before the user can access data files of a course." D2L initially suggested "a user may be assigned more than one role. The roles contain properties that have been defined by the system, not by a user."

Initially, both parties invite inadvertent error because their proposed constructions focus on the standpoint of a *user*. Claim 1 is an *apparatus* claim. Thus, structural and functional limitations of the *system* are at issue. *See* ` 138 patent, col. 30, ll. 18-48. While a user interacts with the system, the user is not part of the system itself. The court's construction, therefore, must focus on system limitations, and must be based on the standpoint of the system.

Similarly, the parties invite additional error by agreeing that the court may instruct the jury that the claim should be defined as including a specific "such that" requirement, *viz.*, "such that each user identified can have one role in one course and another role in another course." [3] The parties agree that the claim term permits one user to assume more than a single role within the

[3] As noted at the outset of this section, D2L initially opposed this language. However, at the *Markman* hearing, D2L conceded that its competing proposal advocated in its responsive brief could be inappropriate because it might "actually capture those types of prior art where an individual could have different log-ons to access different courses." Tr. p. 36, ll. 17-19. Consequently, D2L further agreed at the hearing that the court should adopt the first sentence of Blackboard's proposed construction. Tr. p. 36, ll. 23-25.

system. Nonetheless, for reasons not argued by the litigants, the court cannot wholly adopt Blackboard's proposal.

Blackboard argues that the court should adopt this construction because the specification identifies three separate roles, and states that these "roles may be mixed." *See* ` 138 patent, col. 4, ll. 7-11 ( " . . . roles may be mixed; for example, when an instructor of one course, is also a student in another course."). This reference, however, is only an example of a limitation in an illustrative embodiment. *See* ` 138 patent, Figs. 5-6 and 39. To base the court's construction on it, therefore, runs afoul of the principle that limitations of preferred embodiments will not be read into claims. "Although the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Comms., Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998); s*ee also Varco, L.P. v. Pason Systems USA Corp.*, 436 F.3d 1368, 1373 (Fed. Cir. 2006) ("In examining the specification for proper context, however, this court will not at any time import limitations from the specification into the claims."). If a specific limitation to a system wherein a user is assigned a teacher role within the system as to one course and assigned a student role within the system as to another course were intended, an express recitation of such a limitation could have been placed into the claims. But, such an express recitation is absent in the claim language itself. The court cannot depart from the plain meaning of the claim language and cannot add this limitation.

Additionally, Blackboard's proposed construction would be inconsistent with the remainder of the claim. Language at the end of the claim specifies that multiple user roles to

which each user can be assigned are at least two but can be all three. *See* ` 138 patent, col. 30, ll. 28-34. The word "comprising" makes it permissible for a single user to be assigned to all three identified roles. Thus, a construction that limits assignment of a user to only *one* role in one course and *another* role in another course is not consistent with the open-ended recitation of "comprising at least two user's predetermined roles…."

The sole remaining issue, therefore, is how to properly interpret "*predefined* characteristics" and "*predetermined* roles in the system" (italics added). The operative and italicized words are interchangeable, but the patentee's decision to modify user *roles* with "predetermined," while using a different word, "predefined," to modify associated user *characteristics*, makes the phrase difficult to parse. Nevertheless, a plain reading of the patent language makes clear that "predefined" and "predetermined" are analytically synonymous. As commonly understood, each word denotes a coetaneous temporal limitation, and the parties do not suggest that one should be construed differently from the other.[4]

The parties concur that "predefined" and "predetermined" impose temporal limitations. They disagree over *when* such limitations are imposed. D2L suggests an *ab initio* construction holding that limitations are set or specified by the framework of the system. In other words, D2L argues for an interpretation imposing role and associated characteristic limitations when the system is installed and begins operating. Blackboard, however, advocates an *in medias res*

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[4] There are discernible differences between user *roles* and *characteristics* associated with user roles. The patent does not indicate why the inventor modified roles with "predetermined" but modified characteristics with the commensurate term, "predefined." The court assumes that the language reflects a stylistic choice, perhaps intended to aid in preventing blurring of the subtle distinction between roles and associated characteristics.

interpretation holding that user roles and associated characteristics can be created downstream, i.e., after the system is installed and operating. Blackboard's proposed construction requires only that limitations be set sometime before an established user can access course files.

Here, the claim language uses "predetermined" to indicate a finite set of separately identifiable roles within the system. *See* ` 138 patent, col. 30, ll. 25-34. The roles within the system framework, which have access levels associated with them, are assigned based upon a user's characteristics. *See* ` 138 patent, col. 30, ll. 21-34. Thus, the claim language suggests that predetermined user roles and associated characteristics are settled or decided in advance within the framework of the system.

The specification supports this view. It identifies a universe of roles that encompasses student, teacher and administrator. *See, e.g.*, ` 138 patent, col. 4, ll. 7-11; ` 138 patent, col. 7, ll. 58-59. The specification indicates that user access to system features is tied to the "predefined" role of the user *within* the system. ` 138 patent, col. 3, ll. 42-46 (" . . . a system that allows multiple types of users to access the features of the system as a function of their predefined role within the framework of the system (e.g. student, teacher, administrator)."). The specification further states: "Each user computer is associated with a user of the system having predefined characteristics indicative of a predetermined role in the system. Each role provides a level of access to data files associated with a course, and a level of control over data files associated with a course." ` 138 patent, col. 3, ll. 61-66.

Both the claim language and the specification describe a system in which discrete roles are set in advance within the framework of the system. Nevertheless, Blackboard argues that a construction requiring that user characteristics and roles be established in advance within the framework of the system would be improper because it reads out a preferred embodiment disclosed in the specification. Blackboard points to the fact that an administrator (a user) can change accessible features associated with other users' particular roles within the system. *See* ` 138 patent, col. 12, ll. 61-63; ` 138 patent, col. 13, ll. 17-19. Blackboard maintains that if the court were to construe the claim as stated above, it improperly would eviscerate the administrator's clearly defined authority.

Blackboard correctly argues that a court generally cannot construe a patent claim so as to read out a preferred embodiment. *See Vitronics*, 90 F.3d at 1583 (reasoning that an interpretation that excludes a preferred embodiment is unlikely to be correct). Here, however, a construction that roles are predefined within the system does not read out a preferred embodiment. The preferred embodiment cited by Blackboard does not suggest that users (as opposed to system framework) establish predefined characteristics or predetermined roles. An administrator's ability to change *access* to features associated with particular user roles does not alter the fact that roles and features themselves are set in advance within the system. Rather, in the preferred embodiment scenario cited by Blackboard, the administrator simply works within his/her predetermined role in changing predefined accessible features. Stated differently, an administrator can limit accessible features for a student, but cannot change the student role itself.

"With each user being capable of having predefined characteristics indicative of multiple predetermined roles in the system" means "discrete roles and their associated characteristics to which a user can be multiply assigned are set in advance within the system."

2. "Multiple predetermined user roles comprising at least two user's predetermined roles." Used in Claim 1.

This phrase adds "at least two" in reference to predetermined user roles. The claim, however, already specifies that there are "multiple predetermined user roles." There is no dispute that "multiple" means "at least two." The addition of "at least two," therefore, is not an additional limitation in the claim. The parties agree that this phrase should be interpreted consistently with the phrase above. The court, as Blackboard suggests, will define this phrase identically to the phrase construed above:

"Multiple predetermined user roles comprising at least two user's predetermined roles" means "discrete roles and their associated characteristics to which a user can be multiply assigned are set in advance within the system."

3. Means-Plus-Function Clauses

a. Principles of Analysis

Section 112, ¶ 6 of Title 35 of the United States Code permits an applicant "to express a claim limitation as a means or step for performing a specified function without claiming that the

structure that performs the function." *Biomedino, LLC v. Waters Tech. Corp.*, — F.3d — 2007 WL 1732121, *1 (Fed. Cir. 2007). This section states:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6. Permitting an applicant "to use broad means expression for claiming a functional limitation provided that the specification indicates what structure constitutes the means for performing the claimed function is often referred to as the '*quid pro quo*' for the convenience of employing § 112, ¶ 6." *Biomedino,* 2007 WL 1732121 at * 1 n. 1.

When, as here, a claim limitation uses the word "means," a presumption is invoked that § 112, ¶ 6 applies. *See Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1248 (Fed. Cir. 2005). Four clauses in Claim 1 use the word "means," and the parties agree that they are governed by § 112, ¶ 6.

i. Analytical Framework

Determining the claimed function and the corresponding structure of means-plus-function clauses are matters of claim construction. *WMS Gaming Inc., v. Int'l Game Tech.*, 184 F.3d 1339, 1347 (Fed. Cir. 1999). Claim construction of a means-plus-function limitation involves two steps. *See Medical Instrumentation and Diagnostics v. Elekta*, 344 F.3d 1205, 1210 (Fed. Cir. 2003). The court must first identify the particular claimed function, and then look to the specification and identify the "corresponding structure" for that function. *Id.* "Under this second step, 'structure disclosed in the specification is corresponding structure only if the specification or

prosecution history clearly links or associates that structure to the function recited in the claim.'" *Id.* (citations omitted). "While the specification must contain structure linked to claimed means, this is not a high bar . . . ." *Biomedino,* 2007 WL 1732121 at * 3. "[I]nterpretation of what is disclosed in the specification must be made in light of the knowledge of one skilled in the art." *Biomedino,* 2007 WL 1732121 at * 3.

ii. Indefinite Claims

"If the specification is not clear as to the structure that the patentee intends to correspond to the claimed function, then the patentee has not paid the price [of having a means-plus-function term] but is rather attempting to claim in functional terms unbounded by any reference to structure in the specification." *Biomedino,* 2007 WL 1732121, *1 (citations and quotations omitted). "Thus, '[i]f an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of § 112.'" *Id.* (citations omitted). Failure to particularly point out and distinctly claim the invention renders a claim indefinite, and a claim that is indefinite is invalid. *See Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc.,* 366 F.3d 1308, 1319 (Fed. Cir. 2003).

Here, D2L asserts that all of the means-plus-function clauses are indefinite, and thus fail to comply with the *quid quo pro* requirements of 35 U.S.C. § 112, ¶ 6. A party asserting that a claim is indefinite bears the burden to show this by clear and convincing evidence. *See Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347-1348 (Fed. Cir. 2005). In response,

Blackboard argues that D2L did not timely assert that these claims were indefinite, and suggests, therefore, that the court should wait until a motion for summary judgment is filed before considering the issue.

On this threshold matter, the court agrees that parties cannot simply withhold invalidity arguments until claim construction. *See* P.R. 3-3(d). However, the court must, as part of claim construction, determine the function and the corresponding structure, or lack thereof, as a matter of law. *Biomedino,* 2007 WL 1732121 at * 2. Taking this into account, and given the fact that Blackboard addressed D2L's arguments both in its reply brief and at the *Markman* hearing, the court will now consider whether these claims are indefinite.

b. "Means for storing a plurality of data files associated with a course." Used in Claim 1.

The parties agree, and the court finds, that this phrase is a means-plus-function term. The parties also agree that the function is "storing a plurality of data files associated with a course." The dispute is over the corresponding structure.

Blackboard proposes that the structure is "a server computer with a storage device, such as a database or persistence storage (e.g. 140 in Fig. 1), and equivalents thereof." D2L argues that the specification fails to disclose any structure clearly linked to the recited function, and so this term is indefinite under 35 U.S.C. § 112.[5]

[5] D2L initially argued that the corresponding structure for this term was "system server 100."

Blackboard acknowledges that "the server computer, in and of itself, is not the structure," but nevertheless includes the server as part of the corresponding structure in its proposal. *See* Blackboard's Op. Brief, p. 13. The claim states ". . . the server computer comprising: [followed by the four means clauses]." ` 138 patent, col. 30, ll. 36-37. As Blackboard seems to concede, the server computer is the apparatus that houses the structure for performing the claimed functions, but does not itself perform any of the recited functions. Because a server computer is not an inclusive portion of the "means" structure, it is not properly included as part of the corresponding structure. *See* ` 138 patent, col. 30, ll. 35-37.

Figure 1 shows system architecture, which includes database system 140. *See* ` 138 patent, col. 7, ll. 43-46. Figure 1 itself refers to various storage devices and how they can be utilized (e.g. using Oracle, SQL Server, Sybase, Informix). The specification discloses that "establishment of the course includes an instructor user generating a set of course files for use with teaching the course, then transferring the course files to a server computer for storage thereat . . . ." ` 138 patent, col. 5, ll. 31-35. "Course files" are identified as including "an announcement file, a course information file, a staff information file, a course documents file, an assignments file . . . ." ` 138 patent, col. 4, ll. 14-16.

The claim suggests that "storing" is used in the active sense. Thus, corresponding structure is not only the place where files are ultimately held, but also the mechanism for putting them there. Based on the specification, in order to put files into storage locations within the database 140, core subsystems 150 that interface to the database are required. *See* ` 138 patent, col. 7, ll. 43-55; *see also* ` 138 patent, col. 9, ll. 59-64. The specification, therefore, clearly links

the recited function to the structure of database 140 and core subsystems 150. Viewing the specification in light of the knowledge of one skilled in the art, the database is where course files, which include data files associated with a course, are stored.

The court concludes that the corresponding structure is "database 140 and core subsystems 150."

c. "Means for assigning a level of access to and control of each data file based on a user of the system's predetermined role in a course." Used in Claim 1.

The parties agree, and the court finds, that this phrase is a means-plus-function term. The parties also agree that the function is "assigning a level of access to and control of each data file based on a user of the system's predetermined role in a course." The dispute is over the corresponding structure.

Blackboard proposes "a server computer with an access control manager (e.g. 152 in Fig. 1), and equivalents thereof." D2L argues that the specification fails to disclose any structure clearly linked to the recited function, and so this term is indefinite under 35 U.S.C. § 112.[6]

Figure 1 again shows system architecture, which includes access control manager 152. *See* ` 138 patent, col. 7, ll. 43-46. However, nothing in the specification corresponds to the recited function, i.e., assigning an access level. Rather, the written description of the specification describes creating an access control list to protect subsystems as the function of the access control

[6] D2L originally proposed that the structure was "a level of access and control of each file is supplied by the role taken on by the user's role in the associated course."

manager. *See* ` 138 patent, col. 9, ll. 37-44. Nowhere in this disclosure is there a discussion of "assigning" an access level to each data file. In fact, nowhere in the specification or prosecution history is *anything* said about "assigning" a level of access to data files. Blackboard's reliance on the access control manager 152 as being corresponding structure, therefore, is misplaced.

Blackboard cites testimony of its expert witness in support of its position that the access control manager performs the recited function. The court declines to adopt Blackboard's construction based solely on Dr. Jones' Declaration. First, "testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification." *Biomedino,* 2007 WL 1732121 at * 3. Second, Dr. Jones merely provides a conclusion lacking a detailed and understandable explanation of a basis why one skilled in the art would find access control manager 152 to be linked to the "assigning" function of the claim limitation.

Consequently, the intrinsic record is clear and convincing that there is no disclosed structure clearly linked to the recited function. The court, therefore, finds that this term is indefinite. *See, e.g., Biomedino,* 2007 WL 1732121 at * 3.

d. "Means for determining whether access to a data file associated with the course is authorized." Used in Claim 1.

The parties agree, and the court finds, that this phrase is a means-plus-function term. The parties also agree that the function is "determining whether access to a data file associated with the course is authorized." The dispute is over the corresponding structure.

Blackboard proposes that the corresponding structure is "a server computer with access control data, such as an access control list, and equivalents thereof." D2L argues that the specification fails to disclose any structure clearly linked to the recited function, and so this term is indefinite under 35 U.S.C. § 112.[7]

The "[a]ccess control manager 151 [*sic* 152[8]] creates an access control list (ACL) for one or more subsystems in response to a request from a subsystem to have its resources protected through adherence to an ACL." ` 138 patent, col. 9, ll. 37-40. The specification also discloses that: "[e]ducation support system 100 provides multiple levels of access restrictions to enable different types of users to effectively interact with the system (e.g., access web pages, upload or download files, view grade information) while preserving confidentiality of information." ` 138 patent, col. 9, ll. 40-45. This description clearly links the access control manager to the function of determining whether access to a subsystem is authorized. The database locations having course data files are one such subsystem. *See* ` 138 patent, col. 7, ll. 45-46; ` 138 patent, col. 4, ll. 14-16. This disclosed structure, therefore, corresponds to the recited function.

Based on the written description, viewed in light of the knowledge of one skilled in the art, the corresponding structure is "access control manager 152 and its access control list."

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[7] D2L originally proposed that the structure was "shell service 131 servlet provides user authentication."

[8] The access control manager is described in Column 7 and depicted in Figure 1 as "152." There is no dispute that this is simply a typographical error in Column 9 and that the access control manager is labeled as 152. *See Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1331 (Fed. Cir. 2005).

e. "Means for allowing access to and control of the data file associated with the course if authorization is granted based on the access level of the user of the system." Used in Claim 1.

The parties agree, and the court finds, that this phrase is a means-plus-function term. The parties also agree that the function is "allowing access to and control of the data file associated with the course if authorization is granted based on the access level of the user of the system." The dispute is over the corresponding structure.

Blackboard proposes that the corresponding structure is "a server computer with access and control logic, such as an engine (e.g. 114, 115, or 116 in Fig. 1 or 301 in Fig. 3), registry (e.g. 111, 112, or 113 in Fig. 1, or 302 in Fig. 3), or manager (e.g. 153, 154, 155, 156, or 158 in Fig. 1), and equivalents thereof." D2L argues that the specification fails to disclose any structure clearly linked to the recited function, and so this term is indefinite under 35 U.S.C. § 112.[9]

The access control manager 152 allows access to and control of the data file based on the authorized access level of the user of the system. *See* ` 138 patent, col. 9, ll. 37-45. The access control manager 152, therefore, is clearly linked to the recited function of allowing access to data files. This is, however, the only structure that is clearly linked to the recited function.

Blackboard contends that other structures (e.g., engine(s), registry(ies), or manager(s)) "may be used to allow the eventual access to the course file content once the access control data is checked to ensure the user has permission for the requested access to the course file." Black-

[9] D2L originally proposed that the structure was "access control manager 151."

board's Op. Br., p. 23. However, Blackboard does not cite, and the court is unable to find, any part of the specification or prosecution history linking these proposed structures with the recited function.

Based on the written description, viewed in light of the knowledge of one skilled in the art, the court concludes that the corresponding structure is "access control manager 152."

4. "An method for providing online education method for a community of users in a network based system comprising the steps of" Used in Claim 36.

Blackboard argues that "method for providing" in this term is superfluous and a typographical error made by the Patent and Trademark Office ("PTO"). Blackboard suggests that the court correct the error by eliminating the above phrase. Upon correcting this alleged error, the phrase would read "An online education method for a community of users in a network based system comprising the steps of . . . ." Blackboard then proposes that no further construction is necessary.

D2L argues that the court cannot rewrite the phrase because no error is self-evident from the face of the patent. Moreover, D2L contends that the term is indefinite under 35 U.S.C. § 112. Alternatively, if the court corrects the alleged error, D2L suggests the corrected term should be construed as "a method for exchanging online education materials and information between non-collocated instructors and students, using a computer network."

While neither party addresses this issue, the court first considers whether it is proper to construe this term at all. The phrase at issue is the preamble to Claim 36. Whether to treat a

preamble as a limitation is a determination resolved only on review of the entire patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim. *Catalina Mktg. Int'l Inc. v. Coolsavings.com Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002). In general, a preamble does not limit claims unless the preamble recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim. *Id.*

Here, claim language and the specification demonstrate that the preamble does not constitute a limitation to the scope of the claim. Rather, it is merely a statement of an intended use. *See* ` 138 patent, col. 5, ll. 26-37 (discussing method for providing online education as an intended use); ` 138 patent, col. 32, ll. 20-44. If the preamble were to be deleted, the steps of the claimed invention would not be affected; that is, the body of the claim alone sets forth the subject matter that is the claimed invention.

Moreover, the preamble does not provide an antecedent basis for any of the terms in the claim, and there is no indication that the preamble distinguishes the claimed invention from the prior art. The prosecution history also supports the fact that the preamble is only a statement of intended use. When amending Claim 38 (which issued as Claim 36), the patentee stated "The clarifying amendments to these preambles *make clear what is being claimed in the body of the respective independent claims.*" *See* Blackboard's Op. Br., Ex. 11, Response to Office Action (12/1/2004), p. 10 (emphasis added).

The court finds that the disputed language in Claim 36 does not impose a limitation on the claim. To construe the term and impose an additional limitation on the claim would be error. *See*

Catalina Mktg. Int'l Inc., 289 F.3d at 810. The court, therefore, does not reach the issue of whether the alleged typographical error in the preamble may be corrected.

5. "Establishing that each user is capable of having redefined characteristics indicative of multiple predetermined roles in the system." Used in Claim 36.

Blackboard argues that word "redefined" is a typographical error, and that the court should correct it by changing the word to "predefined." Blackboard proposes that the term then should be construed as: "Each user can have multiple roles in the system such that each user identified can have one role in one course and another role in another course. The roles and some associated characteristics are set before the user can access data files of a course."

D2L argues that the court cannot change the word because error is not self-evident on the face of the patent. Moreover, D2L contends that the phrase as written is indefinite under 35 U.S.C. § 112. Alternatively, if the court corrects the alleged error, D2L suggests "a user may be assigned more than one role. The roles contain properties that have been defined by the system, not by a user."

a. Error Correction

Principles of claim construction were articulated previously, but for ready reference are restated succinctly in the note.[10] Construing a term in accordance with the principles of claim

[10] Title 35 U.S.C. § 112 ¶ 2 requires that claims of a patent particularly point out and distinctly claim the subject matter which the applicant regards as his invention. "In ruling on a claim of patent indefiniteness, a court must determine whether those skilled in the art would understand what is claimed when the claim is read in light of the specification." (continued...)

construction, however, is different than correcting terms because of a typographical or clerical error. The Federal Circuit has made it clear that a court may entertain an invitation to reword patent language only when error is evident from the face of the patent. *See Group One, Ltd. v. Hallmark Cards, Inc.,* 407 F.3d 1297, 1303 (Fed. Cir. 2005). Even then, the court can correct error only when: (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification; and (2) the prosecution history does not suggest a different interpretation of the claims. *Novo Industries, L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003).

The suggested error here is evident on the face of the patent, and the appropriate correction is not subject to reasonable debate. The phrase "predefined characteristics" appears in Claim 1 and again in the Summary of the Invention. *See* ` 138 patent, col. 30, ll. 23-34; ` 138 patent, col. 3, l. 63. Nowhere in the patent is the term "redefined characteristics" used other than the one disputed instance. Moreover, while there are other instances in the specification wherein the term "predefined" is used, the specification never uses the term "redefined." *See, e.g.,* ` 138 patent, col. 5, l. 3; ` 138 patent, col. 3, l. 63.

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[10](...continued)
Bancorp Servs., LLC v. Hartford Life Ins. Co., 359 F.3d 1367, 1371 (Fed. Cir. 2004). "[T]he definiteness of claim terms depends on whether those terms can be given any reasonable meaning." *Datamize,* 417 F.3d at 1347. In determining whether a claim is insolubly ambiguous, the court should construe the terms according to the general principles of claim construction. *Id.* "If the claim is subject to interpretation, i.e., it is not insolubly ambiguous, it is not invalid for indefiniteness." *Bancorp Servs.*, 359 F.3d at 1371.

The prosecution history does not suggest a different interpretation. During prosecution, amended Claim 38, which ultimately issued as Claim 36, used the term "predefined characteristics." *See* Blackboard's Op. Br., Ex. 11, Response to Office Action (12/1/2004), p. 7.

The court concludes that when printing the patent, the PTO simply omitted one letter from the word. This is the type of error the court may correct. *See Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1331 (Fed. Cir. 2005). D2L essentially concedes this point in its brief by not actually advancing any argument on this issue. The court, therefore, corrects the term "redefined" to "predefined."

b. Defining the Claim

With regard to proper construction of this phrase, the court first notes that the terms "predefined characteristics" and "predetermined roles" as used in Claim 36 are identical to terms in Claim 1 which the court discussed and analyzed earlier (disputed terms one and two). Second, the parties' competing proposals and arguments regarding Claim 36 language simply reproduce their earlier dispute. Finally, the parties agree that the Claim 36 terms should be construed consistently with the identical Claim 1 terms. Accordingly, the court construes this term to mean "establishing that discrete roles and their associated characteristics to which a user can be multiply assigned are set in advance within the system."

6. "Providing a predetermined level of access and control [over the network to the course files]." Used in Claim 36(c) and 36(d).[11]

Blackboard proposes "providing access and control to course files over the network, where the level of access and control is set before the user can access or control course files." D2L suggests "the authority to locate, view, read, download, modify, add, move, and delete files associated with a course is provided by the system, not by a user."

The dispute is over how to construe "predetermined," and reproduces arguments of the parties regarding the identical word in Claim 1. Blackboard again argues that its construction accounts for a temporal limitation consistent with the plain meaning of the term. D2L again claims that "predetermined" references levels of access and control provided by the primal system framework and not by a subsequent user.

The term "predetermined" denotes that levels of access and control are set in advance. *See* ` 138 patent, col. 32, ll. 36-43; *see, e.g.,* THE MERRIAM-WEBSTER THIRD NEW INTERNATIONAL DICTIONARY, UNABRIDGED (2002). Claim 36(c) refers to the level of access and control set *within the system* for users who have characteristics identifying the user as a student, while Claim 36(d) refers to the level of access and control set *within the system* for users who have characteristics identifying the user as other than a student. The claim language and the specification teach that each user's level of access and control to course files is tied to that user's predetermined role (e.g.

[11] The claim itself does not contain brackets. In the parties' Joint Claim Construction Chart, Blackboard suggests that the court construe the bracketed language for grammatical consistency only. D2L states that it has no dispute with Blackboard regarding the bracketed claim language, and so the term does not need to be construed. Neither party contends that the bracketed phrase is essential to its respective position. Because there is no dispute regarding the bracketed language, the court will not construe these additional terms.

student, instructor, administrator). *See* ` 138 patent, col. 32, ll. 25-27; ` 138 patent, col. 4, ll. 7-25. As determined earlier, a user's access to system features is based upon the user's role *within* the framework of the system. ` 138 patent, col. 3, ll. 42-46.

The court earlier drew a distinction between an administrator's ability to change access to features associated with a particular user's role and changing the role itself. That distinction also applies to this disputed term in Claim 36(c) and (d), i.e. "predetermined level of access and control." To repeat, the system itself, not an administrator, determines a user's level of access and control over the network to course files. An administrator cannot change the *level* of access and control, but may change some accessible *features* at a given user's level.

D2L's proposal embraces these ideas generally, but D2L adds language that unnecessarily limits the claim. There is no basis in the claim language to include the terms "locate, view, read, download, modify, add, move and delete" in place of "access and control."

"**Providing a predetermined level of access and control"** means "the level of access and control is set in advance within the system."

III. Conclusion

The jury shall be instructed in accordance with these interpretations of the claim terms in the ` 138 patent.

SIGNED this 3 day of August, 2007.

Earl S. Hines
United States Magistrate Judge